Effects of feeding spraydried metabolite of Lactococcus lactis subsp. lactis – RW18 in postweaning rats

ABSTRACT

None information was available on the effects of using spray-dried metabolites of Lactococcus spp. isolated from our local fermented food, ótapai ubiô. Thus, this study was aimed to investigate the effects of feeding spray-dried metabolite (SDM)produced by L. lactis subsp. lactis- RW18 on faecal pH, Enterobacteriaceae bacterial and LAB counts in faeces, plasma cholesterol concentration and growth performance of postweaning rats treated with different levels of SDM as additive in basal diet. A total of twenty-four 4 weeks old Sprague Dawley(male) rats were housed individually in each cage for each treatment. The rats were weighed weekly for four weeks. Water and feed were supplied ad-libitum and feed intake was measured daily and provided in mash form. The animals were randomly assigned to three groups: (i) basal diet (as control); (ii) 0.25% (w/w) SDM; (iii) 0.50% (w/w) SDM. All groups were acclimatized to the respective diets for one week before the experiment started. In terms of growth performance, faecal lactic acid bacteria (LAB) and Enterobacteriaceae counts, faecal pH and plasma cholesterol concentration, 0.25% SDM group had better performance than0.50% SDM and control groups.

Keyword: Enterobacteriaceae; LAB; Plasma cholesterol concentration; Rat